STATEMENT OF BASIS (AI No. 17715)

For Draft Louisiana Pollutant Discharge Elimination System Permit No. LA0005436 to discharge to waters of the State of Louisiana.

THE APPLICANT IS: Crosstex Processing Services, LLC

Eunice Gas Extraction Plant

P.O. Box 907 Eunice, LA 70535

ISSUING OFFICE: Louisiana Department of Environmental Quality (LDEQ)

Office of Environmental Services (Office)

P. O. Box 4313

Baton Rouge, LA 70821-4313

PREPARED BY:

Gene Jarreau

DATE PREPARED:

August 8, 2007

1. PERMIT STATUS

A. Reason For Permit Action:

First time issuance of a Louisiana Pollutant Discharge Elimination System (LPDES) permit for a 5-year term.

B. NPDES permit - NPDES permit effective date: Not applicable.

NPDES permit expiration date: Not applicable. EPA has not retained enforcement authority.

C. LWDPS permit - (WP 3487)

LWDPS permit effective date: March 2, 1992

LWDPS permit modification dates: October 20, 1992 and June 7, 1993

LWDPS permit expiration date: March 1, 1997

D. Date Application Received: December 11, 1998, and an updated application was received March 14, 2006.

2. FACILITY INFORMATION

A. FACILITY TYPE/ACTIVITY - Natural gas processing plant.

The Eunice Gas Extraction Plant is an existing natural gas processing plant that extracts liquefiable hydrocarbons. These hydrocarbons are pipelined from the plant to market.

The residue gas is pipelined from the plant for municipal heating. Three industrial water wells onsite and an additional potable water supply from the Bayou des Cannes water system are the sources of water used at the facility. The facility discharges treated sanitary wastewater, cooling tower blowdown, reverse osmosis backwash, boiler blowdown, utility washwater, exchanger backwash, and process area and non-process area stormwater.

B. FEE RATE

1. Fee Rating Facility Type: Minor

Complexity Type: II
 Wastewater Type: III
 SIC code: 1321

C. LOCATION - 222 Refinery Road, seven miles west of Eunice, Acadia Parish. (Latitude 30°27'38", Longitude 92°31'54")

3. OUTFALL INFORMATION

Outfall 001

Discharge Type: Treated sanitary wastewater (from internal Outfall 101); cooling

tower blowdown, reverse osmosis backwash, boiler blowdown, utility washwater, exchanger backwash, process area and non-process area

stormwater.

Treatment: Oil/water gravity separator (for process area stormwater); residence

time in the aeration and settling ponds (for cooling tower blowdown and process area stormwater); treatment package plant, including chlorination (for sanitary wastewater); gravity flow via internal drainage ditch system (for non-process area stormwater); oil

skimmers (for all other wastewaters).

Location: At the point of discharge from the V-weir at the southeast corner of

the property, prior to mixing with other waters. (Latitude 30°27'30.45", Longitude 92°32'01.13")

(Latitude 30°27'30.45", Longitude 92°32'01.13"

Flow: 306,577 GPD

Discharge Route: Discharged through the plant drainage ditch system, into LA Highway

3068 Ditch, thence into Bayou Barwick, thence into Bayou des

Cannes, thence into Mermentau River.

Outfall 101

Discharge Type: Internal outfall for treated sanitary wastewater.

Treatment: Treatment package plant, including chlorination.

Location:

At the point of discharge from the pipe after the treatment package

plant, prior to mixing with other waters. (Latitude 30°27'38".

Longitude 92°31'59")

Flow:

3,000 GPD

Discharge Route:

Discharged via pipe, into the west oil skimmer, through the plant

drainage ditch system, thence into final Outfall 001.

4. RECEIVING WATERS

STREAM - Bayou Barwick (via LA Highway 3068 Ditch)

A. TSS (15%), mg/L: 14.05

B. Average Hardness, mg/L CaCO₃: 106.29

C. Critical Flow, cfs: 0.1

D. Mixing Zone Fraction: 1

E. Harmonic Mean Flow, cfs: 1

Information based on recommendations from the Engineering Section. Hardness and (15%) TSS data come from ambient sampling site # 649 located on Bayou Mallet, north of lota.

BASIN AND SUBSEGMENT - Mermentau River Basin, Subsegment 050101

DESIGNATED USES - Primary contact recreation, secondary contact recreation, fish and wildlife propagation, and agriculture.

5. PROPOSED EFFLUENT LIMITS

BASIS - See Rationale below.

6. COMPLIANCE HISTORY/COMMENTS

A. Compliance History

LDEQ records were reviewed for the period from August 8, 2004 through August 8, 2007. No records of enforcement actions were found.

The updated application stated that Administrative Order No. WE-CN-98-0131A (issued January 13, 1999) is still in effect.

B. DMR Review/Excursions

Based on a review of DMR data for the period from August 8, 2004 through August 8, 2007, no records of excursions were found.

7. CHANGES FROM EXISTING PERMIT

The following changes are proposed from the existing March 2, 1992 modified LWDPS permit (WP 3487):

- A. Outfall 001 Based on LDEQ Guidance for General Rationale for Natural Gas
 Processing Plants and Compressor Stations and current office practices,
 limitations for temperature and visible sheen have been removed from the permit.
- B. Outfall 001 Biomonitoring requirements are added based on the <u>Permitting Guidance Document for Implementing Louisiana Surface Water Quality Standards</u>, LDEQ, September 27, 2001.
- C. Outfall 001 A Free Available Chlorine limit has been added to the permit due to the cooling water additives used and the volume of treated cooling tower blowdown discharged.
- D. Internal Outfall 101 The monitoring frequency for Outfall 101 has been reduced to 1/6 months in accordance with the Class I Sanitary General Permit.
- E. Internal Outfall 101 The effluent limitation for Fecal Coliform has been reduced to 200 colonies/100 ml, but as a weekly average, as per the <u>Bayou Des Cannes TMDL for Fecal Coliform</u>, (Final 4/5/01).
- F. Internal Outfall 101 pH limitations have been removed, since this outfall is internal to final Outfall 001.
- G. Part II BMP Conditions have been removed from the permit in accordance with current office practices.
- H. Internal Outfall 102 Has been removed since treated cooling tower blowdown flows to final Outfall 001.
- I. Change of ownership/operator. Updated facility plot plan and wastewater flow balance diagram (with corrected average flows for all effluents flowing to final Outfall 001).

8. ENDANGERED SPECIES

The receiving waterbody, Subsegment 050101 of the Mermentau River Basin is not listed in Section II.2 of the Implementation Strategy as requiring consultation with the U.S. Fish and Wildlife Service (FWS). This strategy was submitted with a letter dated September 29, 2006 from Watson (FWS) to Brown (LDEQ). Therefore, in accordance with the Memorandum of Understanding between the LDEQ and the FWS, no further informal (Section 7, Endangered Species Act) consultation is required. It was determined that the issuance of the LPDES permit is not likely to have an adverse effect on any endangered or candidate species or the critical habitat. The effluent limitations established in the permit ensure protection of aquatic life and maintenance of the receiving water as aquatic habitat.

9. HISTORIC SITES

The discharge is from an existing facility location, which does not include an expansion on undisturbed soils. Therefore, there should be no potential effect to sites or properties on or eligible for listing on the National Register of Historic Places, and in accordance with the "Memorandum of Understanding for the Protection of Historic Properties in Louisiana Regarding LPDES Permits" no consultation with the Louisiana State Historic Preservation Officer is required.

10. TENTATIVE DETERMINATION

On the basis of preliminary staff review, the Department of Environmental Quality has made a tentative determination to issue a permit for the discharge described in the application.

11. PUBLIC NOTICES

Upon publication of the public notice, a public comment period shall begin on the date of publication and last for at least 30 days thereafter. During this period, any interested persons may submit written comments on the draft permit and may request a public hearing to clarify issues involved in the permit decision at this Office's address on the first page of the statement of basis. A request for a public hearing shall be in writing and shall state the nature of the issues proposed to be raised in the hearing.

A public notice shall be published in a local newspaper of general circulation and in the Office of Environmental Services Public Notice Mailing List.

Rationale for Crosstex Processing Services, LLC/Eunice Gas Extraction Plant

1. Outfall 001: The discharge of treated sanitary wastewater (from internal outfall 101); cooling tower blowdown; reverse osmosis backwash; boiler blowdown; utility washwater; exchanger backwash; process area and non-process area stormwater.

Pollutant	Limitation	Reference
Flow (MGD) Oil & Grease TOC COD Free Available Chlorine pH Biomonitoring	Report**** 15 mg/L**** 50 mg/L**** 125 mg/L**** 0.5 mg/L**** 6.0 – 9.0 s.u. See Below	LAC 33:IX.2707.I.1.b BPJ; *, **, ***, LDEQ Stormwater Guidance BPJ; *, **, ***, LDEQ Stormwater Guidance BPJ; *** BPJ; * BPJ; * BPJ; *, ***, ***, LDEQ Stormwater Guidance See Appendix B (Biomonitoring Recommendation)

- * Existing permits for similar outfalls.
- ** General Rationale for Natural Gas Processing Plants and Compressor Stations (revised January 7, 2004).
- *** Previous permit.
- **** Daily Maximum
- BPJ Best Professional Judgment
- s.u. Standard Units
- MGD Million Gallons per Day
- TOC Total Organic Carbon
- COD Chemical Oxygen Demand

Treatment: Oil/water gravity separator (for process area stormwater); residence time in the aeration and settling ponds (for cooling tower blowdown and process area stormwater); treatment package plant, including chlorination (for sanitary wastewater); gravity flow via internal drainage ditch system (for non-process area stormwater); oil skimmers (for all other wastewaters).

Monitoring Frequency: All parameters (except biomonitoring) shall be monitored once per month, when discharging.

Limits Justification: Flow reporting is consistent with LAC 33:IX.2707.1.1.b. TOC, oil and grease, and pH limitations are based on BPJ, the previous permit, existing permits for similar outfalls, General Rationale for Natural Gas Processing Plants and Compressor Stations (revised January 7, 2004), and LDEQ Stormwater Guidance [letter dated June 17, 1987 from J. Dale Givens (LDEQ) to Myron Knudson (EPA Region 6)]. COD limitations are based on BPJ and the previous permit. Free Available Chlorine limitations are based on BPJ and existing permits for similar outfalls.

Water Quality-Based Effluent Limitations:

Technology-based effluent limitations and/or specific analytical results from the permittee's application were screened against state water quality numerical standard based limits by following guidance procedures established in the Permitting Guidance Document for Implementing Louisiana Surface Water Quality Standards, LDEQ, September 27, 2001. In accordance with 40 CFR 122.44 (d)(1)/LAC 33:IX.2707.D.1, the existing (or potential) discharge(s) was evaluated in accordance with the Permitting Guidance Document for Implementing Louisiana Surface Water Quality Standards, LDEQ, September 27, 2001, to determine whether pollutants would be discharged "at a level which will cause, have the reasonable potential to cause, or contribute to an excursion above any state water quality standard". Calculations, results, and documentation are given in Appendix A (Water Quality Spreadsheet and Documentation).

The following pollutants received water quality based effluent limits:

None

Minimum quantification levels (MQL's) for state water quality numerical standards-based effluent limitations are set at the values listed in the <u>Permitting Guidance Document for Implementing Louisiana Surface Water Quality Standards</u>, LDEQ, September 27, 2001.

To further ensure compliance with 40 CFR 122.44 (d)(1), whole effluent toxicity testing has been established for Outfall 001 (see below).

Biomonitoring Requirements:

It has been determined that there may be pollutants present in the effluent which may have the potential to cause toxic conditions in the receiving stream. The State of Louisiana has established a narrative criteria which states, "toxic substances shall not be present in quantities that alone or in combination will be toxic to plant or animal life". The Office of Environmental Services requires the use of the most recent EPA biomonitoring protocols.

Whole effluent biomonitoring is the most direct measure of potential toxicity which incorporates both the effects of synergism of effluent components and receiving stream water quality characteristics. Biomonitoring of the effluent is, therefore, required as a condition of this permit to assess potential toxicity. The biomonitoring procedures stipulated as a condition of this permit for Outfall 001 are as follows:

TOXICITY TESTS

FREQUENCY⁽¹⁾⁽²⁾

NOEC, Pass/Fail [0/1], Lethality, Static Renewal, 7-Day Chronic, <u>Pimephales promelas</u> 1/3 months

> NOEC, Value [%], Lethality, Static Renewal, 7-Day Chronic,

1/3 months

Pimephales promelas

NOEC, Value [%], Growth, Static Renewal, 7-Day Chronic, Pimephales promelas

1/3 months

NOEC, Pass/Fail [0/1],

Growth, Static Renewal, 7-Day Chronic, Pimephales promelas

1/3 months

NOEC, Value [%]

Coefficient of Variation, Static Renewal 7-Day Chronic, Pimephales promelas

1/3 months

NOEC, Pass/Fail [0/1], Lethality, Static Renewal

7-Day Chronic, Ceriodaphnia dubia 1/3 months

NOEC, Value [%], Lethality, Static Renewal,

7-Day Chronic Ceriodaphnia dubia 1/3 months

NOEC, Value [%],

Ceriodaphnia dubia

Reproduction, Static Renewal, 7-Day Chronic,

1/3 months

NOEC, Pass/Fail [0/1], Reproduction, Static Renewal,

1/3 months

7-Day Chronic, Ceriodaphnia dubia

NOEC, Value [%] Coefficient of Variation, Static Renewal 7-Day Chronic, Ceriodaphnia dubia

1/3 months

(1) The permittee must collect the 24-hour composite samples such that the effluent samples are representative of any periodic episode of chlorination, biocide usage or other potentially toxic substance discharged on an intermittent basis. However,

if no biofouling agent or chlorine is used during the monitoring period, the permittee must still conduct the required quarterly testing.

If no lethal or sub-lethal effects are demonstrated after the first year of quarterly testing, the permittee may certify fulfillment of the WET testing requirements in writing to the permitting authority. If granted, the monitoring frequency for the test species may be reduced to not less than 1/year for the Pimephales promelas and not less than twice per year for the Ceriodaphnia dubia. Upon expiration of the permit, the monitoring frequency for both species shall revert to once per quarter until the permit is re-issued.

Toxicity tests shall be performed in accordance with protocols described in the latest revision of the "Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms". The stipulated test species are appropriate to measure the toxicity of the effluent consistent with the requirements of the State water quality standards. The biomonitoring frequency has been established to reflect the likelihood of ambient toxicity and to provide data representative of the toxic potential of the facility's discharge in accordance with regulations promulgated at LAC 33:IX.2715/40 CFR 122.48.

Results of all dilutions as well as the associated chemical monitoring of pH, temperature, hardness, dissolved oxygen, conductivity, and alkalinity shall be documented in a full report according to the test method publication mentioned in the previous paragraph. The permittee shall submit a copy of the first full report to this Office. The full report and subsequent reports are to be retained for three (3) years following the provisions of Part III.C.3 of this permit. The permit requires the submission of certain toxicity testing information as an attachment to the Discharge Monitoring Report.

This permit may be reopened to require effluent limits, additional testing, and/or other appropriate actions to address toxicity if biomonitoring data show actual or potential ambient toxicity to be the result of the permittee's discharge to the receiving stream or water body. Modification or revocation of the permit is subject to the provisions of LAC 33:IX.3105/40 CFR 124.5. Accelerated or intensified toxicity testing may be required in accordance with Section 308 of the Clean Water Act.

Dilution Series

The permit requires five (5) dilutions in addition to the control (0% effluent) to be used in the toxicity tests. These additional effluent concentrations shall be 79%, 59%, 44%, 33%, and 25%. The low-flow effluent concentration (critical dilution) is defined as 79% effluent.

2. Outfall 101: Internal outfall for treated sanitary wastewater.

<u>Pollutant</u>	<u>Limitation</u>	Reference
Flow (GPD)	Report*	LAC 33:IX.2707.I.1.b
BOD ₅	45 mg/L*	BPJ, Class I Sanitary General Permit
TSS	45 mg/L*	BPJ, Class I Sanitary General Permit
Fecal Coliform	200 colonies/100 ml*	BPJ, TMDL**

* Weekly Average

** Bayou des Cannes TMDL for Fecal Coliform, (Final 4/5/01)

BPJ Best Professional Judgment

GPD Gallons Per Day

BOD₅ Biochemical Oxygen Demand (5-Day)

TSS Total Suspended Solids

TMDL Total Maximum Daily Load

Treatment: Treatment package plant, including chlorination.

Monitoring Frequency: All parameters shall be monitored once per six months, when discharging (consistent with the Class I Sanitary General Permit).

Limits Justification: Treated sanitary wastewater is regulated in accordance with LAC 33:IX.711 or 709.B, by BPJ utilizing the sanitary general permits issued by this Office, and the Louisiana Water Quality Management Plan, Volume 8, Appendices A (Areawide Policies) and B (Statewide Sanitary Effluent Limitations Policy), as applicable. Concentration limits are used in accordance with LAC 33:IX.2709.F.1.b which states that mass limitations are not necessary when applicable standards and limitations are expressed in other units of measurement. LAC 33:IX.709.B references LAC 33:IX.711 which expresses BOD₅ and TSS in terms of concentration. Fecal Coliform limits are based upon BPJ and the <u>Bayou des Cannes TMDL for Fecal Coliform</u>, (Final 4/5/01). Flow reporting is consistent with LAC 33:IX.2707.I.1.b.

3. TMDL WATERBODIES

Subsegment 050101, Bayou Des Cannes – Headwaters to Mermentau River, is not listed on LDEQ's Final 2004 303(d) list as impaired. However, subsegment 050101 was previously listed as impaired for mercury, pathogen indicators, organic enrichment/low DO, nutrients, suspended solids, TSS/turbidity/siltation, turbidity, carbofuran, fipronil, and phosphorus, for which the below TMDLs have been developed. The Department of Environmental Quality reserves the right to impose more stringent discharge limitations and/or additional restrictions in the future to maintain the water quality integrity and the designated uses of the receiving water bodies based upon additional TMDLs and/or water quality studies. The DEQ also reserves the right to modify or revoke and reissue this permit based upon any changes to established TMDLs for this discharge, or to accommodate for pollutant trading provisions in approved TMDL watersheds as necessary to achieve compliance with water quality standards.

LDEQ's position, as supported by the ruling in the lawsuit regarding water quality criteria for nutrients (Sierra Club v. Givens, 710 So.2d 249 (La. App. 1st Cir. 1997), writ denied, 705 So.2d 1106 (La. 1998), is that when oxygen-demanding substances are controlled and limited in order to ensure that the dissolved oxygen criterion is supported, nutrients are also controlled and limited.

LAC 33:IX.2707.C.f.iii allows the establishment of effluent limitations based on an indicator parameter for the pollutant of concern. LDEQ's consistent approach to controlling nutrients where the WQMP does not otherwise require specific nutrient limitations is achieved by limiting the discharge of oxygen-demanding substances through a BOD₅ limitation. Compliance with the BOD₅ limitation as the indicator parameter will result in the control of nutrients from the discharge sufficient to attain and maintain the applicable water quality standard.

Effluent monitoring of the indicator parameter as conducted by the permittee in accordance with Part I of the permit in addition to LDEQ's ambient water quality monitoring program will allow for further evaluation by the LDEQ to determine the effectiveness of the limitation. The reopener clause located in Part II of the final permit allows the LDEQ to modify or revoke and reissue the permit if the limitations as set on the indicator parameter are shown to no longer attain and maintain applicable water quality standards.

The following TMDLs have been established for subsegment 050101:

Mercury TMDLs for Coastal Bays and Gulf Waters of Louisiana, (Final 7/8/05)

All currently effective Louisiana Mercury TMDLs state that while there are many potential sources of mercury to waters of the state of Louisiana, over 99% of the pollutant load comes from the atmospheric deposition of mercury from global and local sources. Even though this facility was listed as a point source discharge in this TMDL, it was not identified as a significant contributor. There is no load allocation, and no data available indicating mercury would be expected in discharges from this operation. This TMDL does not indicate mercury is discharged

from the operation of this facility. Therefore, mercury requirements will not be placed in this permit.

Mercury TMDLs for Subsegments within Mermentau and Vermilion-Teche River Basins, (Final 4/5/01)

Point source loading of mercury into surface waters of the Mermentau River Basin accounts for 0.6% of the existing total load. The discharge from this facility consists of an average flow of 0.20325 MGD of commingled treated sanitary wastewater, cooling tower blowdown and utility washwater. Crosstex Processing Services, LLC operates a natural gas processing plant that produces natural gas residue (which is pipelined out for municipal heating) and extracts liquefiable hydrocarbons (which are pipelined out). No products/services or raw materials utilized at this facility contain mercury or mercury compounds.

Because point sources have a very minor effect on mercury in the Mermentau Basin and because this facility does not process/produce or otherwise handle any mercury containing compounds, there is no reasonable potential for this discharge to cause or contribute to an in-stream excursion of the water quality standards for mercury. Therefore, no effluent limitation or requirements for mercury will be placed in this permit.

Bayou Des Cannes TMDL for Fecal Coliform, (Final 4/5/01)

The Louisiana Water Quality Regulations require permitted point source discharges of treated sanitary wastewater to maintain a fecal coliform count of 200 colonies/100 ml in their effluent. To address pathogen indicators, this limit is included for treated sanitary wastewater discharges in this permit.

Bayou Des Cannes Watershed TMDL for Dissolved Oxygen and Nutrients Including WLA for One Treatment Facility, (Final 2/25/00)

The TMDL requires a 50-75% decrease in manmade non-point source loads. The only point source requiring upgrade as a result of the TMDL is the City of Iota. All other point source discharges were not considered to have the reasonable potential to impact the modeled reaches of the TMDL.

However, to protect against discharging levels of BOD₅, TOC, or COD that would cause receiving water impairment for organic enrichment/low DO, these parameters are limited in the permit through appropriate technology-based limits. To protect against the discharge of nutrients and phosphorus, BOD₅ has been limited as an indicator parameter.

TMDL for TSS, Turbidity, and Siltation for the Mermentau River Basin, (Final 5/2/02) As defined by the TMDL, point sources do not represent a significant source of TSS. Point sources discharge primarily organic TSS, which does not contribute to impairment from sedimentation. Because LPDES permits address suspended solids to maintain water quality

standards for DO, the WLA for point sources was set to zero (0). Therefore, no additional suspended solids and turbidity effluent limitations have been established in this permit.

Also, as per the TMDL for TSS/turbidity/siltation for the Mermentau River Basin, point source loads are so small as to be insignificant, and because effective policies are in place to limit TSS discharges, no specific reductions from point sources are required. Since there is a previous TSS limit, the TSS limit will remain as previously permitted.

TMDL for the Pesticide Carbofuran in the Mermentau River and Vermilion-Teche River Basins, (Final 3/21/02)

For carbofuran, there are no known point source discharges in the Mermentau River Basin; therefore, no allocation was given to point sources.

TMDL for the Pesticide Fipronil in the Mermentau River Basin, (Final 3/21/02)

There are no known point sources for the pesticide fipronil in the Mermentau River Basin. Effluent from these point sources is not expected to contain fipronil because its use is limited to rice farming. Therefore, concentrations of fipronil in their effluents are not expected, and would be considered an enforcement issue, and dealt with accordingly. Waste Load Allocations for point source discharges were set to zero (0). In accordance with the TMDL, no reductions in point source discharges are required for fipronil.